equate for environments where dust, chemicals, moisture, or other contamination is prevalent, or risk of exposure to liquids is high.

[0019] It would be advantageous to have a touch pad which is simple to learn and use, includes only the functions necessary for a simple application such as a graphical user interface, is more durable and rugged than existing touch pads, can be completely sealed from external contamination, and is not subject to processor speed for providing audible feedback to inform an operator a selection has been made.

OBJECTS AND SUMMARY OF THE INVENTION

[0020] It is an object of the invention to provide a zone which provides the function of a mouse click.

[0021] It is another object to provide a zone which provides the function of a double-click.

[0022] It is another object to provide a zone which provides the function of a drag lock on and off toggle switch.

[0023] The invention includes a touch pad for use in a kiosk or other graphical user interface system such as desktop computers. For simplified use, the touch pad may have a relative cursor positioning touch-sensitive zone, an absolute positioning touchsensitive zone, and an auditory feedback device. The touch pad may also have a second absolute positioning touch-sensitive zone programmed to scroll-up or scroll-down depending on the direction an operator's finger is moving within the region. Optionally, the touch pad may be enclosed by a housing to seal the touch pad completely from external contamination. In one embodiment, a rigid and durable protective plate is placed over the touch pad sensing surface to increase the life of the touch pad. In another embodiment, tactile feedback is used to assist an operator in distinguishing between touch pad zones by touch.

[0024] Some of the advantages of the invention are seen in its simplicity of use, user friendliness, durability, and applicability. By establishing "touch" sensitive absolute positioning zones, operators are not required to learn or use "taps" to operate a system, but can instead operate the zone on the touch pad surface similar to a mechanical button without the disadvantages associated with mechanical buttons. By simplifying a touch pad to include only basic functions required for graphical user interface applications such as point and click, and scroll-up and -down, the touch pad is simple to use for both beginners and experts. By completely sealing the touch pad from external contamination, the touch pad is waterproof and dust proof, making the touch pad more easily cleaned and reliable in contaminating environments. By covering the touchsensitive surface with a protective plate, the touch pad is more durable and thus lasts longer in environments where heavy use is a factor or additional protection is needed. Finally, by adding sensory feedback to indicate the differences between zones, and when a zone has been selected, the touch pad is more user friendly and useful to an operator.

[0025] These and other objects, features, advantages and alternative aspects of the present invention will become apparent to those skilled in the art from a consideration of the following detailed description taken in combination with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0026] **FIG. 1** is a front view of a kiosk employing a graphical monitor and a touch pad.

[0027] **FIG. 2** is a sectional perspective view of a preferred embodiment of a touch pad touch-sensitive surface and protective enclosure separated to emphasize individual parts.

[0028] **FIG. 3** is a top view of a preferred embodiment of a simplified touch-sensitive surface depicting an "enter zone", a "scroll zone", and a "relative cursor positioning zone"

[0029] **FIG. 4** is a side view of a preferred embodiment of a touch pad depicting a protective cover, a touch-sensitive surface, a speaker, and electronic components.

[0030] **FIG. 5** is a front view of an interactive panel employing a monitor and a touch pad adapted for alphanumeric or symbolic entry as well as relative cursor positioning.

[0031] **FIG. 6** is an front view of an embodiment of an alphanumeric touch pad.

[0032] **FIG. 7** is a front view of an interactive information panel employing a graphical interface monitor and a touch pad having a scroll zone, enter zone, and relative cursor positioning zone.

[0033] **FIG. 8** is a front view of a kiosk panel such as that of an ATM, depicting a monitor and a touch pad with a relative cursor positioning zone, an enter zone, a numeric entry zone, and a signature verification zone with stylus for signature entry.

DETAILED DESCRIPTION OF THE INVENTION

[0034] Reference will now be made to the drawings in which the various elements of the present invention will be given numerical designations and in which the invention will be discussed so as to enable one skilled in the art to make and use the invention. It is to be understood that the following description is only exemplary of the principles of the present invention, and should not be viewed as narrowing the claims which follow.

[0035] **FIG. 1** depicts a touch pad **21** for use in a kiosk generally **23** in addition to a touch screen monitor **25**, or with an ordinary monitor **25** in place of the touch function typically served by a touch. The touch pad **21** comprises a programmable touch-sensitive surface **26** having at least two contiguous zones: a relative cursor positioning zone **27**, and an "enter" or "select" zone **29**. The "enter" or "select" zone **29** is an absolute positioning programmable zone **29** preferably programmed to register an "enter", "select" or "mouse button click" command to the host computer (not shown) when the touch-sensitive surface in that zone detects a "touch" from an operator's finger. A "touch" includes any form of touching done within the programmable zone **29**, such as pressing, tapping, or even simply bringing a finger substantially near the programmable zone **29**. The farther from the touchsensitive surface a conductive object, such as a finger, is placed, the less the surface is able to detect its presence. The distance from which a conductive object can be placed from a given touch-sensitive surface and still be